Off-Balance Sheet Financing: Operating Leases & Other Topics

Session 7

Let’s Discuss Leases
Off-Balance-Sheet Obligation with Leases

- **Capital leases** *versus* operating leases

- **Capital lease:**
  - Leases which effectively transfer all/most of the rewards and risks to the lessee
  - Economic equivalent of financed sales

- **Operating leases:**
  - Short-term leases which allow the lessee to use the asset for a short period of time.

Leasing Rules

- **Rules invoked at the inception of the lease:**
  - Transfer of ownership
  - Bargain purchase option in the lease
  - Lease life ≥ 75% of economic life
    - Exception if asset is within last 25% of its life
  - PV of lease payments ≥ 90% of 1st cost
    - Discount rate: Lower of lessee’s incremental borrowing rate or lessor’s implicit interest rate

- Violation of one rule results in treating the lease as a capital lease.
Circumvent the Lease Rules

- Why bother?
  Only matters to *lessee* because:
  - Profits and incentive compensation affected!
  - Improved ratios for profitability, leverage, and turnover
  - Debt kept off the balance sheet
    » May circumvent bond covenants

Accounting for Lessee: Operating Lease vs. Capital Lease

<table>
<thead>
<tr>
<th>Operating Lease</th>
<th>Capital Lease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debit: Rental expense</td>
<td>Debit: Fixed asset</td>
</tr>
<tr>
<td>Credit: Rental payable or cash</td>
<td>Credit: LT liabilities</td>
</tr>
<tr>
<td>Debit: Depreciation expense</td>
<td>Credit: Accumulated depreciation</td>
</tr>
<tr>
<td>Debit: Interest expense</td>
<td>Debit: LT liabilities</td>
</tr>
<tr>
<td>Debit: LT liabilities</td>
<td>Credit: Lease payable or cash</td>
</tr>
</tbody>
</table>
Accounting Treatment: Lessee

- Exhibit 8-12 of White, Sondhi, and Fried
  - Puts numbers to the accounting treatment
  - Discusses:
    » Balance sheet
    » Income statement
    » Statement of cash flows.

Accounting for Lessor: Operating Lease vs. Capital Lease

<table>
<thead>
<tr>
<th>Operating Lease</th>
<th>Capital Lease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debit: Rental receivable</td>
<td>Debit: Account receivable</td>
</tr>
<tr>
<td>Credit: Rental revenue</td>
<td>Credit: Sales revenue</td>
</tr>
<tr>
<td>Leased asset remains on books as a fixed asset. Depreciation taken annually.</td>
<td>Debit: Cost of sales Credit: Inventory/fixed asset Debit: Interest receivable Credit: Interest income</td>
</tr>
</tbody>
</table>
Accounting Treatment: Lessor

- Exhibit 8-15 of White, Sondhi, and Fried
  - Puts numbers to the accounting treatment
  - Discusses:
    » Balance sheet
    » Income statement
    » Statement of cash flows.

Capitalize the Operating Leases

- Capital lease ratio approach
  Formula:
  \[ NPV = \frac{PV \text{ of capital leases}}{Total \text{ capital leases}} \times \text{total op. leases} \]
- Net present value approach
  Formula:
  \[ NPV = \text{Discounted value of all future cash flows.} \]
Example: Capitalizing Operating Leases

- Manpower, Inc.’s 1993 annual report shows:
  
  \[ \text{Total lease obligations} = \$238,584 \]
  
<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>94</td>
<td>$44,364</td>
</tr>
<tr>
<td>95</td>
<td>$34,951</td>
</tr>
<tr>
<td>96</td>
<td>$27,630</td>
</tr>
<tr>
<td>97</td>
<td>$20,843</td>
</tr>
<tr>
<td>98</td>
<td>$15,299</td>
</tr>
<tr>
<td>Later</td>
<td>$95,497</td>
</tr>
</tbody>
</table>

- Note 6 of the report: Convertible debt issued at 6.25%

\[
\text{PV} = \frac{\$44,364}{(1.065)} + \frac{\$34,951}{(1.065)^2} + \frac{\$27,630}{(1.065)^3} + \frac{\$20,843}{(1.065)^4} + \frac{\$15,299}{(1.065)^5} + \frac{\$15,916}{(1.065)^6} + \ldots + \frac{\$15,916}{(1.065)^{11}} = \$178,949.
\]

Other Off-Balance-Sheet Financing
In-substance Defeasance of Debt

- Definition of Defeasance:
  
  An instrument accompanying a bond, containing a condition which, when performed, defeats or undoes it.

- In-substance defeasance means that the bond does not contain the “condition” but the firm can still “undo” the bond.

- Why bother?
- How is it done?

Why Bother?

- Removes debt from the balance sheet
  - Improves debt/equity ratio
- Usually results in a profit
  - Improves profitability ratios
  - Profit is tax deferred until maturity date of debt
- Overall: Less risky & more profitable
- Higher profits → higher compensation.
How Does it Work...?

- Necessary debt characteristics
  - Fixed rate, fixed maturity
  - Nonconvertible, non-callable
  - U.S. treasury rate > debt’s coupon rate
- Find present value of company’s debt issue
  \[ PV = \text{Interest} \times (PVIFA \ r\%, \ n \ yrs) + \text{principal} \times (PVIF \ r\%, \ nth \ yr) \]
- Book value of debt > market value of debt.

How Does it Work...?

- Company pays market value of debt to an irrevocable trust
  - Means: Money flows in one direction
  - Trustee responsible for making payments to debtholders
- Accounting
  - Debit: Debt at book value $70,000
  - Credit: Cash (market value of debt) $55,000
  - Credit: Gain on retirement of debt. $15,000
How Does It Work?

- Irrevocable trust buys government securities with the cash
  - Interest rate for gov’t securities > coupon rate of company debt
  - Principal + interest for gov’t securities used to pay off company debt as obligations come due.

Nonsub Sub

- XYZ Corp. developing a new product with long lead time to market
  - Approaches engineers/scientists to start a new company to develop the product
    - XYZ Co. provides convertible debt financing
    - New company successful: XYZ Co. converts the debt to equity — takes over the new company
      • Consolidates new company with XYZ Co.
    - New company unsuccessful: XYZ Co. writes off its investment
  - Why do this?
R& D Partnerships

- XYZ Corp. forms partnership to develop a product
  - XYZ: general partner
  - Investors: limited partners
- Partnership has no facilities/personnel — sub-contracts the work
- XYZ Corp. likely the contractor.

R&D Partnership...

Corporation

Limited Partners

Limited Partnership

Contractor

(likely the Corporation)

FIN 551 - Financial Statement Analysis

19
The End